Table WEB-1: Summary of Di-n-Hexyl Phthalate (DHP) Reproductive Toxicity Studies in Mice

|           |  |                | Dose                |  |
|-----------|--|----------------|---------------------|--|
| Strain    | Experimental Regimen   | Number         | (mg DHP/kg bw/day)  | Effects  |
| CD-1 Mice | Fertility assessment through continuous breeding study.  | 37             | 0                   | 37/37 pairs fertile  |
| (1, 2)    | DHP administered in feed at 0, 0.3, 0.6, or 1.2%. Breeding pairs housed together for 98 days; body weight was measured on 6 days, clinical signs, and food intake were recorded; litters were counted, sexed, weighed, and removed following birth.  In a crossover breeding study, high dose males and females were mated with control mice. Breeding pairs were housed together for seven days or until a copulatory plug was observed. Necropsy and a histopathological | 17<br>19<br>16 | 380<br>800<br>1,670 | 14/17 pairs fertile  ↓ Litters/pair (n=3.43 vs. 4.89 in control)  ↓ Live pups/litter (n=3.43 vs. 12.29in control)  ↑ Pup mortality  1/19 pairs fertile  O/16 pairs fertile  Cross-over mating trial  ↓ Mating rate in males. Females normal  ↓ Fertility in exposed males x control females, 6 vs. 85%  ↓Fertility in exposed females x control males, 0 pairs fertile.  ↓ Sperm count and motility in F <sub>0</sub> males  ↓ Testis, epididymis, and seminal vesicle to body weight ratio.  ↑ Liver to body weight ratio in F <sub>0</sub> males and females |
|           | examination were conducted.  |                |                     | $\downarrow$ Body weight in $F_0$ males and females  |

Table WEB-2: Summary of Di-n-Hexyl Phthalate (DnHP) Developmental Toxicity Studies

|           |  |        |                             | Effects      |                        |
|-----------|--|--------|-----------------------------|--------------|------------------------|
| Strain    | Experimental Regimen   | Number | Dose<br>(mg DIDP/kg bw/day) | Maternal     | Fetal                  |
| CD-1 Mice | Prenatal developmental toxicity screening study.   | 50     | 0                           |              |                        |
| (3)       | Mice were gavaged with DnHP (undiluted) from gd 6-13.  Dams were observed twice daily and weighed on gd 6, gd 17, and pnd 3. Pups were delivered and nursed until pd 3. Dams were killed on pd 3 and the uteri of females that did not deliver, were stained with ammonium sulfide to examine implantation sites.  Developmental parameters evaluated in pups included body weight and survival. | 48     | 9900                        | Not reported | No live pups at birth. |

- 1. Lamb JC, IV. Reproductive effects of four phthalic acid esters in the mouse. Toxicol Appl Pharmacol 88:255-269(1987).
- 2. Reel JR, Lawton AD, Myers CB. Di-N-Hexyl Phthalate: Reproduction and Fertility Assessment in CD-1 Mice When Administered in the Feed. NTP-85-187. NTIS#PB85-249332: National Toxicology Program, National Institute of Environmental Health Sciences, 1985.
- 3. Hardin BD, Schuler RL, Burg JR, Booth GM, Hazelden KP, MacKenzie KM, Piccirillo VJ, Smith KN. Evaluation of 60 chemicals in a preliminary developmental toxicity test. Teratogen Carcinogen Mutagen 7:29-48(1987).